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██████████, D/GG/F  
22 Aug 1958 25X1A9a

MEMORANDUM FOR: Deputy Director (Intelligence)

SUBJECT: Probable Location of Chinese Sputnik Launching Site

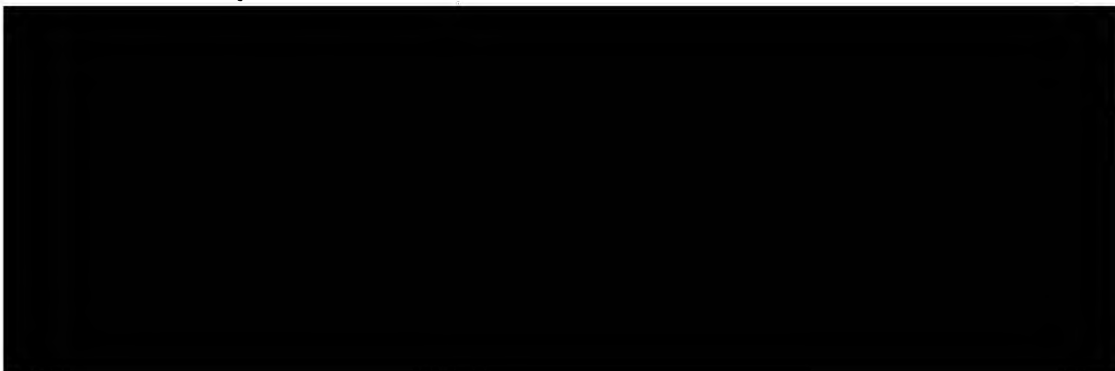
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1. Recent reports from Warsaw and ██████████ are the latest of a series indicating that the Soviet Union has decided to cooperate with Communist China in launching an earth satellite. Considering this news in the light of geographic research currently being done on possible guided missile ranges in Communist China, it is possible to develop a geographic estimate of the probable locale of a Chinese earth satellite vehicle launching.

*see  
attached  
insert*

2. ~~X~~ Soviet cooperation ~~X~~ for a missile powerful enough to launch ~~an~~ <sup>in</sup> ~~a~~ <sup>ing</sup> "Chinese" earth satellite into orbit would <sup>be</sup> ~~likely~~ <sup>to include</sup> require Soviet personnel, Soviet missiles, Soviet launching equipment, and Soviet supporting equipment. The Chinese participation, <sup>would probably</sup> in all probability, ~~might well~~ be confined to technical observation and button-pushing. A transplanted Sputnik may be expected to be made up of the standard three-stage Soviet ICBM <sup>into</sup> that propelled ~~into~~ orbit <sup>as were the</sup> ~~three previous Sputniks~~ <sup>launched at</sup> ~~into orbit at Tyura Tam.~~ <sup>Soviet</sup>

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4. Assuming that ~~this will be a one shot performance~~, Soviet cooperation

*→ would*  
~~will probably not include the construction of a permanent ICBM launching base,~~

~~but the use will be made of the~~ *Instead, a* Soviet mobile train developed for the  
~~operational deployment of ICBM missiles.~~ *might be used.* It is estimated that ~~the~~ *a* Soviet  
 ICBM mobile train ~~will include transporters~~ *would be* capable of transporting ~~70-~~ to  
 110-foot long missiles, possibly four or more large and heavy 60-foot liquid  
 oxygen transporters per missile, a number of ~~standard~~ tank cars of liquid  
 fuels, as many as 10 or 13 power generator cars weighing as much as 113 tons  
 each, and an indeterminate number of ~~boxcars, dining, sleeping, and baggage cars~~ *for personnel and other support.*

*no* In only one area of China proper can a Soviet specialized train move  
 into the country on Soviet wide-gauge tracks. Beyond the gauge-change points  
 at Manchouli or Sui-fen-ho a mobile launching train would have to be ~~fitted~~ *adapted*  
~~with bogey wheels adapting it to standard gauge, or the equipment on the train~~  
 would have to be transferred to Chinese rolling stock. Even if this were done,  
 movement of the heavy launching train over low capacity stretches of Chinese  
 track would be a difficult task. On the newly-completed Trans-Mongolian  
 railroad, however, the gauge change at Chi-ning is well within the Chinese  
 border.

*5.* Reasonably level terrain *would be* necessary for the development of  
 rail spurs to service the ~~Soviet~~ *satellite* launching area and the mobile launching  
 train. *and for installation of ground support facilities*  
~~It is particularly important that no major terrain obstacles hinder~~  
~~the transport of the missile and its supporting equipment to the launching~~  
~~area or hamper the development of instrumentation sites and other ground~~

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~~support facilities.~~ As the accompanying map suggests, this eliminates extensive areas of mainland China that are comprised of rugged mountains, eroded plateaus, hill lands, or narrow river valleys. The steppes of Inner Mongolia north of Peiping, however, <sup>meet</sup> ~~match~~ the terrain requirements ~~well~~ <sup>--</sup> they are level to rolling, ~~sparsely populated~~, short-grass covered plains, ~~similar to the northern prairie states of the U.S.~~

6. <sup>the</sup> ~~the~~ The hazard to populations in the vicinity of the launch site is high within a radius of 25 miles and for an even greater distance around the missile booster impact area -- about 230 to 460 miles downrange. ~~A brief look shows~~ <sup>generally appears to</sup> the areas east of a line connecting Harbin, Peiping, and Ch'eng-tu ~~are too~~ <sup>populated to permit ICBM missile launchings.</sup> In order to conform to established Soviet instrumentation in the northeast, it is probable that the Chinese <sup>satellite would</sup> ~~Sputnik~~ will be launched in a northeasterly direction. As indicated by the map, ~~the hazard of a missile booster impact rules out possible launch areas~~ in northern Manchuria. The booster impact area of a launching from the Chi-ning -- P'ang-chiang area, on the other hand, would fall in sparsely populated areas.

7. ~~the~~ Other launching criteria show similar locational indications. Low precipitation and wind speeds in the Chi-ning area are advantageous for launching operations. Wireline facilities along the Trans-Mongolian railroad are available for communications links between Peiping and the site, as well as for instrumentation support between the site, Ulan Ude and down-range instrumentation points to the northeast. Ad hoc radio communications

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arrangements, of course, might well supplement the land-line links. Security precautions would also be more easily enforced, while at the same time the location remains relatively accessible from Peiping -- a little more than 200 air-miles away.

8. <sup>estimated</sup> The operational requirements of a Soviet-sponsored Chinese earth satellite missile launching within the next few months <sup>considered in association with</sup> ~~balanced off against~~ the invariables of Chinese geography, ~~therefore~~ suggest the strong possibility of a launching in the Mongolian steppe northwest of Peiping. ~~On a long-term program, it is entirely possible that a Sputnik launching would follow the development of a permanent Chinese ballistic missile testing and training range, probably in Inner Mongolia. Regardless of the location of a successful launching of a Chinese Sputnik, however, the impact of the missile will be felt in the capitals of non-Bloc Southeast Asian countries over which it will make its initial orbit.\* And western nuclear countries will know that the Soviets have been able to transport an ICBM over 3500 miles of Soviet rail line to China, set it up, and fire it.~~

*A major successful launching from this location would*

\*All of Southeast Asia and Australia would be within the ICBM maximum range of 5500 nautical miles on a great-circle route from the Soviet Far East.

Aside from the propaganda benefits <sup>to the Bloc</sup> of a successful satellite launching from this location, Western leaders might obtain firm evidence of Soviet capability to ~~transport~~ utilize mobile trains for the deployment of ICBMs.

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